

Claims:

1. A method for charging particles (M1), which particles are used for processing of an optical material, in which method at least
  - 5       - a gaseous reactant (M2) is supplied,
  - oxidizing gas (M3) is supplied in the reactant (M2),**characterized** in that
  - the oxidizing gas (M3) is charged electrically before it is supplied to the reactant (M2),
  - 10       - the reactant (M2) and the oxidizing gas (M3) form charged particles (M1) immediately when oxidizing gas (M3) is supplied to the reactant (M2).
2. The method according to claim 1, **characterized** in that the oxidizing gas (M3) is charged in a nozzle (3) by means of which gas is conveyed to the space comprising oxidizing material (M2).
3. The method according to claim 1 or 2, **characterized** in that the oxidizing gas (M3) whose flow rate is 80 to 300 m/s is charged by means of a corona charger (4).
4. The method according to any of the preceding claims, **characterized** in that the material to be processed is a fiber preform or another multicomponent oxide construction or a titanium oxide construction.
5. A particle charging device (1) for forming particles (M1), which particles are used at least for processing of an optical material, which charging device comprises at least
  - 30       - a channel (2) for supplying a gaseous reactant (M2),
  - a channel for supplying oxidizing gas (M3),
  - a charging member (4, 5),**characterized** in that
  - 35       - the charging member (4, 5) is arranged to charge the oxidizing gas (M3) electrically,

- 5                   -       after the charging member (4, 5) the channel (M3) of the oxidizing gas is connected to a space, to which the channel (2) supplying the reactant is connected, to form electrically charged particles immediately when the oxidizing gas (M3) is supplied to the reactant (M2).
6. The charging device (1) according to claim 5, **characterized** in that the charging member (4, 5) is a corona charger.
- 10   7. The charging device (1) according to claim 5 or 6, **characterized** in that the channel of oxidizing gas is connected to the channel (2) of the reactant (M2) at least by means of one nozzle (3) to convey the oxidizing gas to the channel (2) of the reactant (M2).
- 15   8. The charging device (1) according to claim 7, **characterized** in that the nozzle (3) is designed to taper in such a manner that the speed of the gas (M3) flowing therethrough is increased.
- 20   9. The charging device according to any of the preceding claims 7 to 8, **characterized** in that the nozzle (3) comprises a charging member (4, 5).
- 25   10. The charging device (1) according to claim 5 or 6, **characterized** in that the charging device (1) also comprises at least
- a first gas supply channel (7) in which a charging member (5) is arranged to charge the gas, and
  - a second gas supply channel (8) that surrounds the first gas supply channel (7).
- 30   11. The charging device (1) according to claim 5 or 6, **characterized** in that the charging device (1) also comprises at least
- a first gas supply channel (7) and
  - a second gas supply channel (8) that surrounds the first gas supply channel (7), and
  - 35   -       a charging member (5) arranged in the second gas supply channel to charge the gas.